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BRIEF DESCRIPTION OF THE DRAWINGS

~~For a more complete understanding of the invention, and for further features and advantages, reference is now made to the following description, taken in conjunction with the accompanying drawings, in which:~~

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FIGURES 1A and 1B are elevation and plan views, respectively, of a system for manufacturing or repairing parts according to one embodiment of the invention;

10 FIGURE 2 is a block diagram of a laser based additive manufacturing ("LBAM") system that includes a powder delivery system according to one embodiment of the invention;

FIGURE 3 shows an elevation view of a portion of the powder delivery system of FIGURE 2 according to one embodiment of the invention;

15 FIGURE 4 is a graphical representation of powder feeding rates as a function of rates of rotation of a metering device according to one embodiment of the invention;

FIGURE 5 shows a plan view of a flow determining device including an optical electronic system according to one embodiment of the invention;

20 FIGURE 6 is a cross sectional elevation view of a powder nozzle according to one embodiment of the invention;

FIGURE 7 is a block diagram of a computer for use in the system of FIGURES 1A and 1B according to an embodiment of the invention;

25 FIGURE 8A is a flowchart illustrating an example method of controlling the size of the molten pool in laser-based additive manufacturing according to an embodiment of the invention;

FIGURE 8B illustrates an example graph and example images showing successful control of a molten pool in laser-based additive manufacturing according to an embodiment of the invention; and

30 FIGURE 9 is a flowchart illustrating an example method of controlling the operational weld parameters in welding-based deposition processes according to one embodiment of the invention.

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